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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,073	03/30/2001	Lenny Low	PA-Y0048	8069

7590

03/04/2003

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EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 03/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



# Office Action Summary

Application No.

09/822,073

Applicant(s)

Low et al.

Examiner

A. H. Kinson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12/27/02.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/1/02 & 3/30/01 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_



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***Response to RCE and Amendment***

Applicant's arguments filed 12/27/02 have been fully considered but they are not persuasive.

***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the heat pipe panel must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is



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solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the originally filed specification fails to disclose “a remotely-located heat source disposed ... at a location that it remote from the heat dissipating system ... ;and a loop heat pipe thermally coupled between the ... heat source and the heat dissipating system”.

***Claim Rejections - 35 USC § 112***

Claims 1-6 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claims 1, 3 and 5, the originally filed specification fails to disclose “a remotely-located heat source disposed ... at a location that it remote from the heat dissipating system ... ;and a loop heat pipe thermally coupled between the ... heat source and the heat dissipating system”.

***Claim Rejections - 35 USC § 102***



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The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by Esposto. See at least figure 1 and column 4, lines 20-22.

### ***Response to Arguments***

Applicant's newly added limitation/language "a remotely-located heat source disposed ... at a location that it remote from the heat dissipating system ... ;and a loop heat pipe thermally coupled between the ... heat source and the heat dissipating system" is not supported within the originally filed specification. The system "10a" as stated in applicant's originally filed specification on page 3, line 6 comprises a loop heat pipe. Therefore, the originally within the originally filed specification filed specification states the loop heat pipe is the same as the heat dissipating system (i.e. they are one and the same). Therefore, the phrase "a loop heat pipe thermally coupled between the ... heat source and the heat dissipating system" as claims 1, 3, and 5 cannot be physically possible since the above quoted limitation requires the loop heat pipe to be coupled between the heat source and itself. This limitation was not disclosed within applicant's originally filed specification. However, the loop heat pipe is coupled between the heat source and the radiator panel (12,13).

Applicant's concerns directed toward Esposto are not found persuasive. A looped heat



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pipe (20) transfers heat energy to radiators (10,12) from a remotely located (located inside space 22, see column 4, lines 20-22)) heat source.

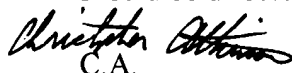
### *Conclusion*

In view of applicant's statements on page 1, lines 1-17 of applicant's instant ~~application~~ <sup>application</sup> ~~on~~ <sup>on</sup> applicant has knowledge of and designs spacecrafts, where heat pipes radiate heat from the spacecrafts. Therefore, in applications filed under 35 U.S.C. 111(a), applicants and other individuals substantively involved with the preparation and/or prosecution of the application have a duty to submit to the Office information which is material to patentability as defined in 37 CFR 1.56. The provisions of 37 CFR 1.97 and 37 CFR 1.98 provide a mechanism by which patent applicants may comply with the duty of disclosure provided in 37 CFR 1.56.

Also, applicants and other individuals substantively involved with the preparation and/or prosecution of the patent application also may want the Office to consider information for a variety of other reasons; e.g., to make sure that the examiner has an opportunity to consider the same information that was considered by these individuals, or by another patent office in a counterpart or related patent application filed in another country.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.

  
C.A.

CHRISTOPHER ATKINSON  
PRIMARY EXAMINER

March 4, 2003